DEDICATED MICROS

2060 Dome Camera Installation Manual

Weatherproof and Indoor versions

www.dedicatedmicros.com

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While every attempt is made to ensure these manuals are accurate and current, Dedicated Micros reserve the right to alter or modify the specification of the machine described herein without prejudice.

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Introduction

The Dedicated Micros 2060 camera is a precision unit, offering a wide variable speed range, together with a large pre-set memory for positions, tours and alarm responses. There are sensitive day/night camera versions with a switchable infra-red filter and with 36 times or 18 times optical zoom lenses plus 12 times digital enhancement suitable for outdoor use, or a colour/mono camera with 18 times optical zoom and 12 times digital enhancement suitable for indoor applications. The external 2060 camera is weatherproof (IP-66 rated).

The unit has a comprehensive set of features as standard, which can be tailored for individual preferences. These can be accessed through an internally generated set of menus overlaid on the video signal if the controller does not have a suitable layout.

Outline Specification:

Speed range	0.05 to 300° / second max (both Pan and Tilt)
Repeatability	5 minutes of arc
Control	RS485 half duplex or simplex, 9600 Baud Dennard, Pelco P, Bosch Ultrak OR 'Up the coax' for Dedicated Micros, Dennard, BBV, Baxall or Pelco protocols
Storage capacity	200 preset positions, with identifying title of up to 20 characters
	100 tours of up to 16 preset positions
	100 alarm response memory
Power Supply	24VAC, Camera & control electronics:-20W
Dimensions	Outdoor variant: 206mm diameter x 240mm overall
	Indoor variant: 189mm diameter x 250mm overall
Protection	Outdoor variant - BS EN 60529 to level IP66 (no water ingress)
	Indoor variant - BS EN 60529 to level IP50 (no dust ingress)
Weight	Outdoor variant: 3kg + mounting bracket
	Indoor variant: 2kg + mounting bracket
Mounting Configurations	Ceiling mount, pendant mount, wall bracket, corner mount, snowdrop parapet & tile mounts available

18X zoom day/night camera module

Sensor	¼" Ex-view HAD progressive scan CCD
Optical range	3.4mm to 122.4mm zoom; F1.6 to F4.5
Auto-focus with manual override	Privacy zones
	24 programmable zones (8 on screen at any time)
Video sensitivity	0.07 lux color 50IRE
	0.01 lux ICR-on mode 50IRE
Video resolution	440000 pixels PAL, 380000 NTSC
	530 TVL
Video output	1.0v p-p composite, negative synch

36X zoom day/night camera module

Sensor	¼" Ex-view HAD progressive scan CCD
Optical range	3.4mm to 122.4mm zoom; F1.6 to F4.5
Auto-focus with manual override	24 programmable zones (8 on screen at any time)
Video sensitivity	0.1 lux color 50IRE
	0.01 lux color ICR-on 50IRE
Video resolution	440000 pixels PAL, 380000 NTSC
	530 TVL
Video output	1.0v p-p composite, negative synch

18X zoom colour/mono camera

Sensor	¼" Super HAD CCD
Optical range	4.1mm to 73.8mm zoom; F1.4 to F3.0
Auto-focus with manual override	Privacy zones
	24 programmable zones (8 on screen at any time)
Video sensitivity	1 lux color 50IRE
Video resolution	440000 pixels PAL, 380000 NTSC
	More than 460 TVL PAL, 470 TVL NTSC
Video output	1.0v p-p composite, negative synch

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RF Interference warning

This is a class A product. In a domestic environment this product may cause radio frequency interference, in which case the user may be required to take adequate measures.

IMPORTANT SAFETY INSTRUCTIONS

1 Read, follow and keep these instructions.

2 Heed all warnings.

3 Use only attachments/accessories specified by the manufacturer.

4 Use only with the brackets or equipment specified by the manufacturer.

6 Unplug this apparatus during lightening storms or when unused for long periods of time.

7 Refer all servicing to authorized service personnel. Servicing is required when the apparatus has been damaged in any way, such as power cord or plug is damaged.

8 WARNING. DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE.

9 Use a 1.5 Amp power supply provided for the weatherproof product; Use a power supply with a minimum current of 1 amps and floating (not referenced to ground output) for the indoor product.

CE NOTICE (EUROPEAN UNION).

Marking by the symbol CE indicates compliance of this DM product to the Electromagnetic Compatibility Directive 89/336/EEC, and the Low Voltage Directive 73/23/EEC of the European Union. Such marking is indicative that this system meets the following technical standards.

- EN 61000-6-3 EMC Standard Residential, Commercial and Light Industry.
- EN 61000-3-3 Limitations of voltage changes, fluctuations and flicker in public low-voltage supply systems for equipment with rated current up to 16A.
- EN 61000-3-2 Limits for harmonic current emissions for equipment with rated current up to 16A.
- EN 50130-4 Immunity requirements for components of fire, intruder and social alarm systems.
- EN 60950 Safety of IT and related equipment.
- EN 55022 Class B. Radiated Emissions Standard, suitable for Commercial or Residential use.
- EN 60825-1 Safety standard for LED's and Lasers.

Further details about these applicable standards can be obtained from Dedicated Micros LTD. 1200 Daresbury Park, Daresbury, Cheshire, WA44HS. A "Declaration of Conformity" with all relevant European Union Directives has been made, is on file and is available from the Dedicated Micros address above.

CE

This product is marked with the CE symbol and indicates compliance with all applicable directives.

Directive 89/336/EEC.

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Components supplied

Before installing the dome, please remove the components from the packaging and verify that all items listed below have been supplied:

Indoor Dome

1 x	Dedicated Micros 2060 Indoor Dome enclosure and camera (with incorporated safety bond)
1x	5mm A/F hexagonal socket key
1 x	Installation manual
1 x	Operation and Programming Manual

Note: *The PSU must be 24VAC Power Supply with floating output and a minimum current of 1 amps. Dedicated Micros recommends the DM/94012 for indoor dome for the UK and DM/94013 for Europe.*

Note: *Mounting brackets may have been ordered and delivered separately.*

Note: *Indoor domes are rated to IP50 and are not sealed against water ingress.*

Weatherproof Dome

1 x	Dedicated Micros 2060 IP66 Weatherproof Dome enclosure and camera (with incorporated safety bond)
1x	Power Supply
1x	3m Flying Lead connection
1x	5mm A/F hexagonal socket key
1 x	Installation manual
1 x	Operation and Programming Manual

Note: *Mounting brackets may have been ordered and delivered separately.*

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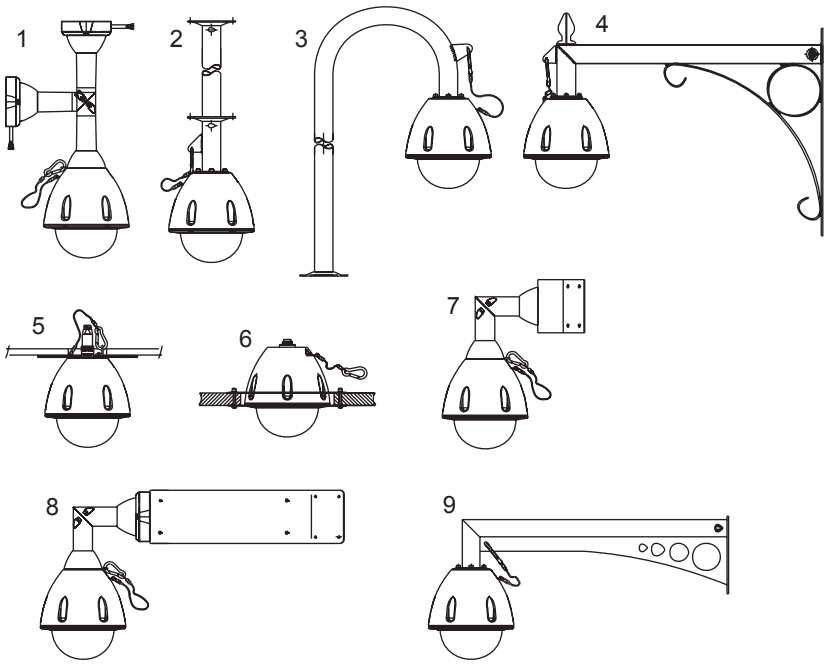
Mounting Configurations - External

With appropriate brackets this dome enclosure can be mounted in any of the orientations shown below. The mounting bracket is prewired for ease of installation.

Note: *Mounting brackets may have been ordered and delivered separately.*



1. Wall/Pendant Mount (order code DM/90002) giving pendant or wall mount options.
2. Pendant Mount bracket (order code DM/90003) giving pendant or wall mount options.
3. Snowdrop mount bracket (order code DM/90004) for mounting at the top of a pole, column or roof parapet.
4. Vintage mount bracket (order code DM/90005) for installation near historic buildings.
5. Ceiling mount bracket (order code DM/90006) for solid or suspended ceilings.
6. Tile mount (order code DM/90001) for suspended ceilings
7. Corner bracket (order code DM/90007) for mounting to corners of buildings in conjunction with DM/90002.
8. Extended corner bracket (order code DM/90008) for mounting to corners of buildings in conjunction with DM/90002.
9. Extended wall bracket (order code DM/90009) for extending out from a wall.

All mounting versions are suitable for both weatherproof (IP66 BS EN 60529/NEMA Type 4X) and indoor units.

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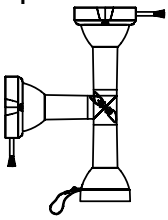
Mounting Configurations - Indoor

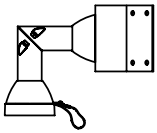
With appropriate brackets this dome enclosure can be mounted in any of the orientations shown below. The mounting bracket is prewired for ease of installation.

Note: *Mounting brackets may have been ordered and delivered separately.*

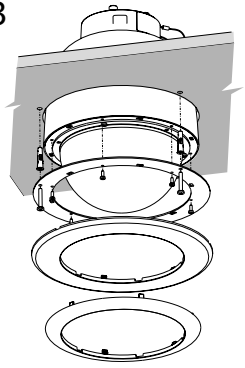
1



2



3



1. Wall/Pendant Mount (order code DM/90002) giving pendant or wall mount options.
2. Corner Bracket (order code DM/90007) for mounting to corners of buildings in conjunction with DM/90002.
3. Tile mount (order code DM/CSD/TMR) for suspended ceilings.

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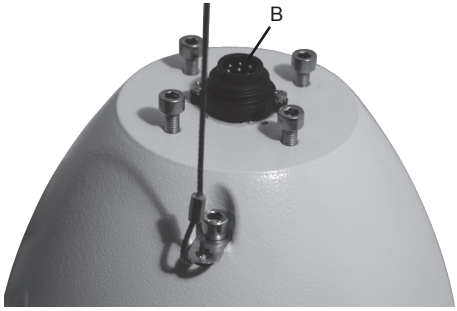
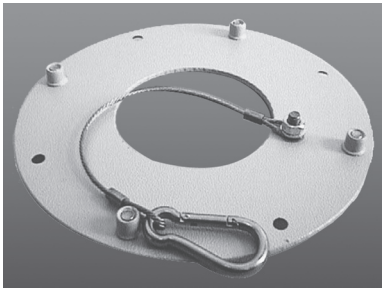
Safety Bond - Weatherproof Dome

The safety bond is designed to prevent damage to the dome if it is dropped during installation or maintenance. It should be connected between the mounting point on the dome and a suitable secure position, either on the bracket or within the ceiling void. This point should be selected with the consideration that it will receive the full force of the dome if it is dropped.





For wall, pendant & snowdrop/parapet mounted domes;

1. Clip safety bond to the mounting bracket eyelet (A) on flange of bracket to secure.

For standard ceiling mounted domes attach the supplied safety bond;

1. Attach safety bond to a suitable secure position in the ceiling void.

Note: *Always support dome with bond prior to mating connector (B). Weight of dome should be supported by bond ensuring no stress is placed on centre connector (B) at any time.*

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Safety Bond - Indoor Dome

The safety bond is designed to prevent damage to the dome if it is dropped during installation or maintenance. It should be connected between the mounting point on the dome and a suitable secure position, either on the bracket or within the ceiling void. This point should be selected with the consideration that it will receive the full force of the dome if it is dropped.

For wall, pendant & snowdrop mounted domes;

1. Clip safety bond to the mounting bracket eyelet on flange of bracket to secure.

For standard ceiling mounted domes attach the supplied safety bond;

1. Attach bond to a suitable secure position in the ceiling void.

Note: *Always support dome with bond prior to mating connector. The weight of dome should be supported by bond ensuring no stress is placed on centre connector at any time.*

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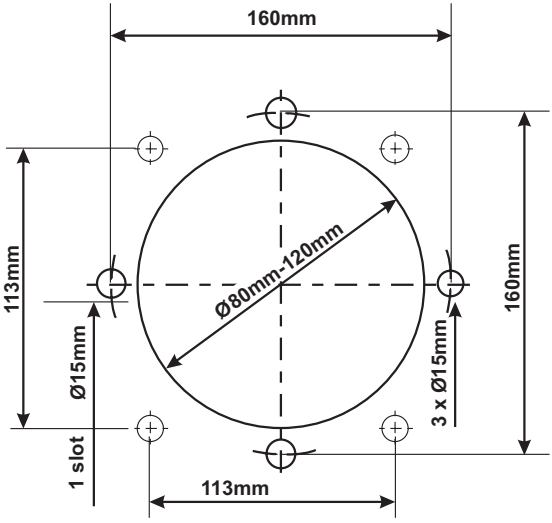
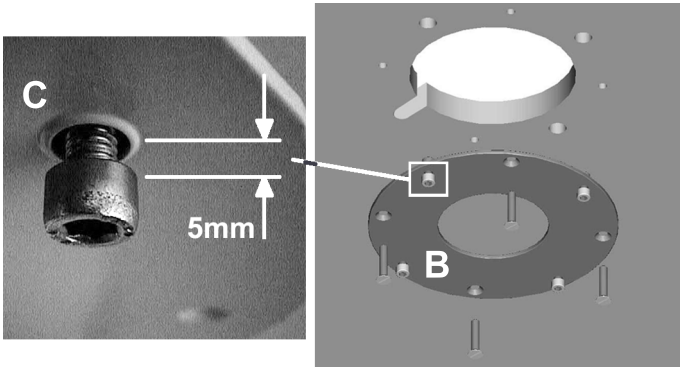
Ceiling Mounting - Weatherproof dome

1. Cut or drill a hole in the ceiling in the required position using the pattern shown below.

Note: *The installer is responsible for ensuring the fixings used to mount the dome are suitable for the material and will adequately support the weight of the dome.*



2. Attach the mounting disc (B) to the ceiling in the chosen position and fix 4x M6x16 socket head cap screws (supplied) into the bushes (C) as shown below.



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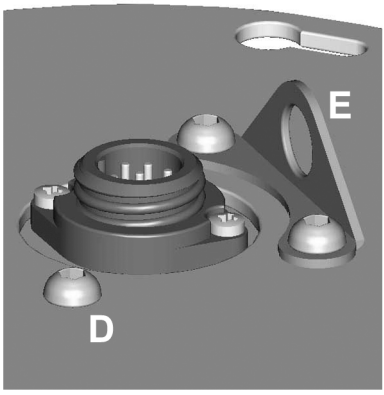
3. Attach the Transfer Disc to the top of the dome enclosure using 4x prefitted M6 cap head screws (D).

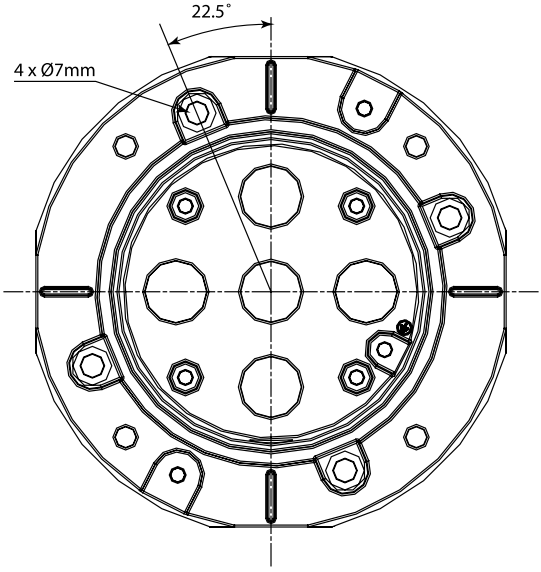
Note: *Fit the safety bond bracket (E) as shown.*



4. Fit the safety bond between the enclosure and the mounting disk.
5. Offer the dome enclosure up to the ceiling mounting disk, (shown upper right) engaging the screw heads (C) into the keyhole slots on the base of the dome (F) enclosure. Twist once located to secure, then tighten screw heads (C) to secure the dome enclosure to the mounting disk.

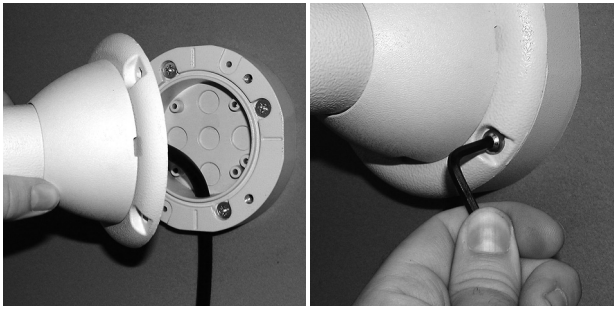
Note: *Ensure the safety bond is fitted.*

Wall Mounting Bracket



1. Remove the bracket base by unscrewing the outer trilobular fixings, then mark and drill 4x Ø7mm holes using the bracket base casting as a pattern. Use a spirit bubble level against one of the flats to align accurately.
2. If mounting onto masonry, insert 4x M6 rawlplugs into the wall until flush.
3. Offer the bracket base casting into position and fasten to the wall using appropriate fixings.

Note: *Locating the dome on the corner of a building will give an increased area of surveillance. For this application, Dedicated Micros offer an optional corner bracket, (DM90007) to adapt the standard wall bracket.*



4. Thread the cable from the bracket throught the cable entry hole in the bottom of the bracket casting, then fit the bracket (shown above left).

Note: *The bracket casting can be oriented to position the cable entry hole below, on either side of at the top.*

5. Attach the bracket to the base using the supplied trilobular fixings (shown above right).

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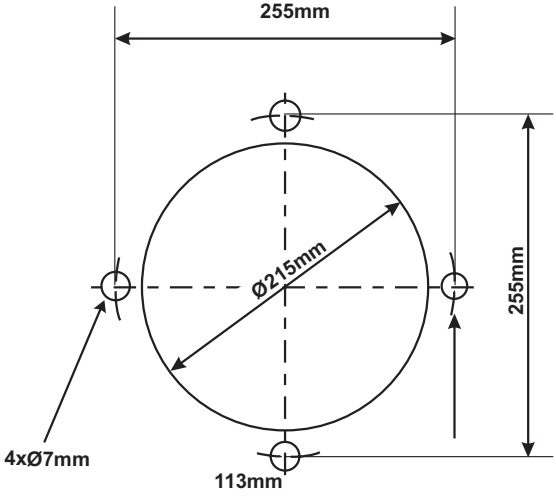
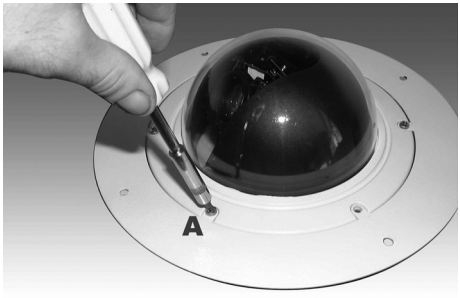
Tile Mounting - Weatherproof Dome

1. Cut or drill a hole in the tile in the required position using the pattern shown below.

Note: *The installer is responsible for ensuring the fixings used to mount the dome are suitable for the material and will adequately support the weight of the dome.*



2. Attach the mounting disc (A) to the dome in the chosen position and use 3 of the existing M4 dome hd screws to attach the hemisphere to the dome.



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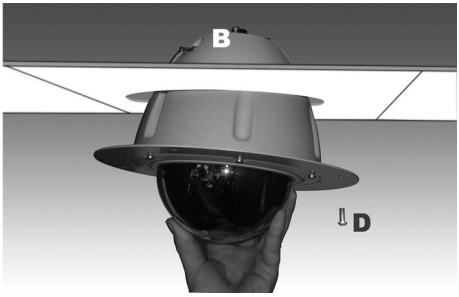
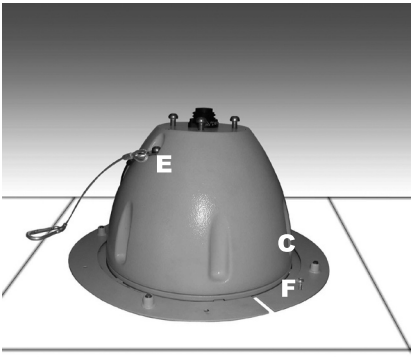
3. Place dome, complete with attached mounting disc, into the pre-cut hole (B) in the tile from beneath.



4. From above, clamp to the tile via 2 x off split clamp rings (C).
5. Secure the mounting disc with 4 x supplied off M6 socket button head fixings (D).
6. Fit the supplied safety bond (E) to an attachment point in the ceiling.



Note: *When using soffit mount, the split clamp ring (F) must be fixed into position using 4 off M4 pan head screws (supplied)*

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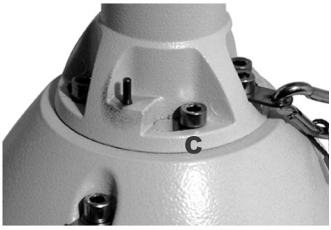
Dome Mounting - Weatherproof Dome



1. Secure & hang the dome to the bracket by attaching the safety bond spring clip into the eyelet (A)
2. Connect the central connector supplying power & control to the dome (B).

Note: *Ensure power is OFF before connecting the dome.*

3. Lift the dome to the bracket flange ensuring head of screws pass through the keyhole slots. Twist to locate and lock.
4. Tighten the 4 top mounting fixings with 5mm A/F Hexagonal key (as supplied) to secure. Finally secure the plastic cover to the metal pins on the bracket flange (C).

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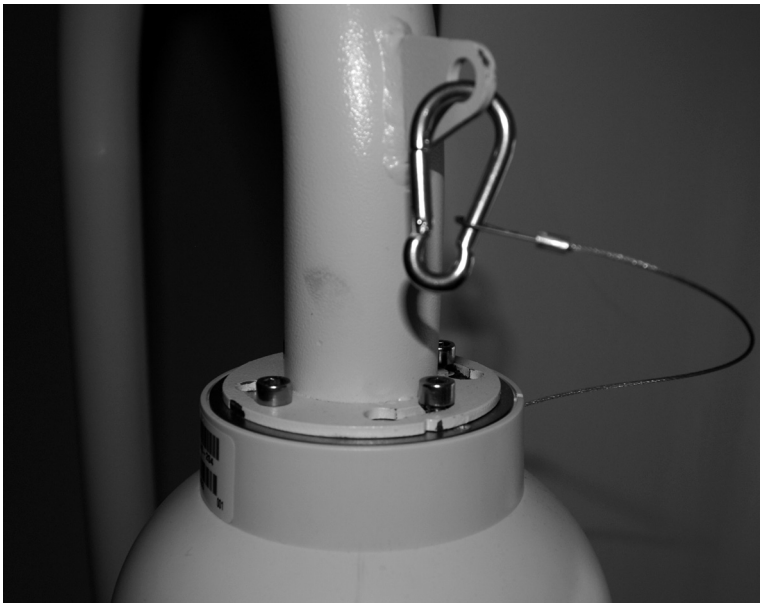
Dome Mounting - Indoor Dome



1. Secure & hang the dome to the bracket by attaching the safety bond spring clip to eyelet (as shown).

Note: *Wall bracket shown. Procedure is the same for Snowdrop/Roof Parapet installation.*

2. Connect the central connector supplying power & control to the dome.

Note: *Ensure power is OFF before connecting the dome.*

3. Lift the dome to bracket flange ensuring head of screws (previously fitted M6x20mm Caphead Screw) pass through the keyhole slots. Twist to locate and lock.
4. Tighten the 4 top mounting fixings with 5mm A/F Hexagonal key (as supplied) to secure. Finally secure the plastic cover to the metal pins on the bracket flange.

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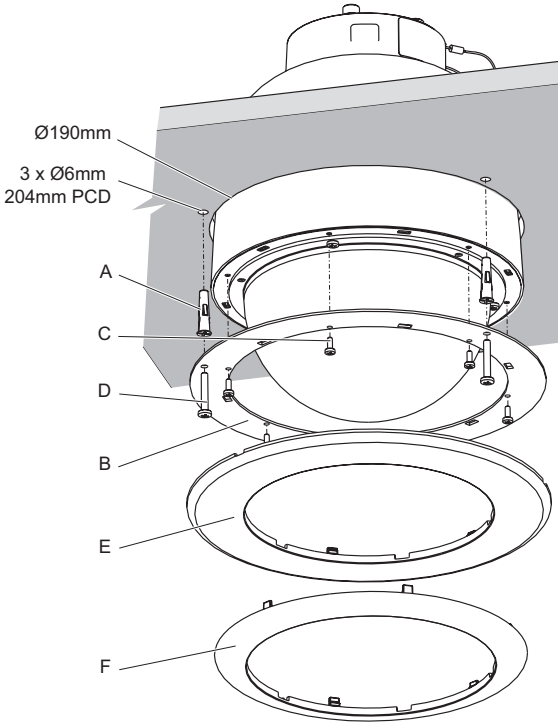
Tile Mounting - Indoor Dome



1. Remove the selected tile that will have the dome mounted to it. Use the mounting ring (B) as a template to mark the drilling positions of the 3 x supporting holes on a 204mm pitch circle diameter (6mmØ holes, if using the supplied cavity plugs (A)) and the 190mmØ hole for the dome. Fit the cavity plugs (A) to the holes.

Note: *The installer is responsible for ensuring the fixings used to mount the dome are suitable for the material and will adequately support the weight of the dome.*

2. Attach the mounting ring to the dome using the provided 6 x M3x8 fixings (C).
3. Re-install the tile in the ceiling. Secure and hang the dome to a suitable mounting point in the ceiling void by attaching the safety bond spring clip to the eyelet (through the large centre hole in the tile).

Note: *Ceiling installation is made easier by removing an adjacent ceiling tile during installation.*

4. Fasten the dome to the mounting ring (B) using the provided 3 x No.8x1”(25.4mm) self tapping screws (D) (or suitable fixings provided by the installer).
5. Snap fit the tile mount bezel (E). This replaces the standard bezel (F) provided with the camera. Discard the standard bezel (F).

Note: *If the dome requires tile mounting Part E must be ordered separately using part number DM/CSD/TMR.*

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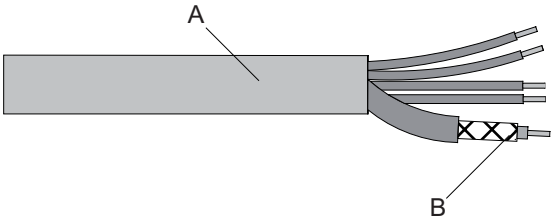
Electrical Connections - Weatherproof Dome

The Dedicated Micros 2060 external connections are via an IP66 Amphenol connector with 3 metre composite cable flying lead that can be extended to 30 metres max., comprising co-ax, power pair & RS485 pair. This lead should be connected to the boxed P.S.U. supplied with the dome.



a. Multicore cable with integral Co-ax (Video)

b. Co-ax. (Video)

The co-ax and power wires are always connected, the RS 485 wires are only connected when an external protocol converter is fitted or an RS485 controller is being used.

Wire	**Connection**
Red	24VAC live
Blue	24VAC neutral
Yellow	RS485 A
Green	RS485 B
Coax screen	BNC screen
Coax Signal	BNC centre pin

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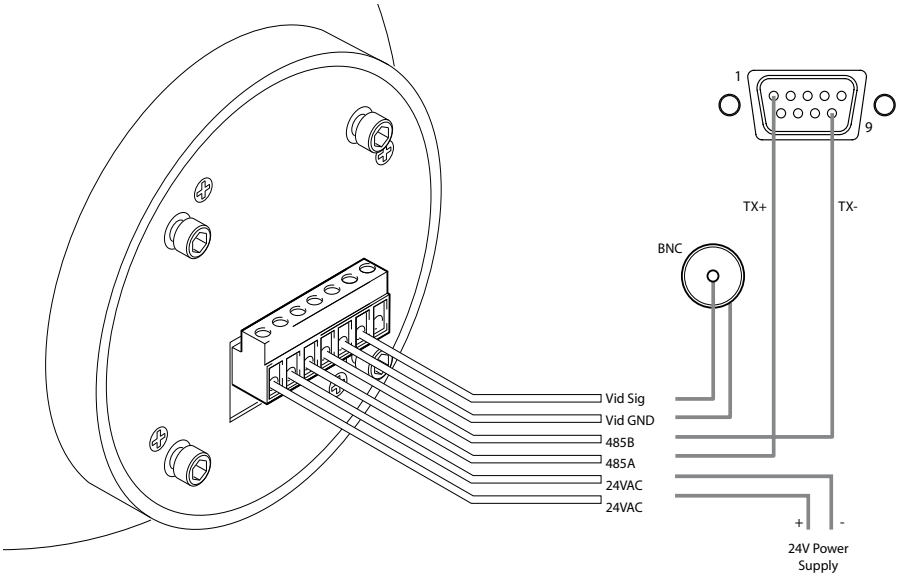
Electrical Connections - Indoor

The dome requires connection to the power supply and to the BNC connection of the DVR. Use the serial port connection if serial telemetry is required. There is no prepared cable included, the connector for the camera is included.



Connector	Function
24VAC	24VAC+ from 24VAC 1A
24VAC	24VAC- from 24VAC 1A
485A	Pin 1 on Serial Connection to appropriate DVR
485B	Pin 9 on Serial Connector to appropriate DVR
Vid GND	BNC Earth (screen connection)
Vid Sig	BNC Signal (centre pin connection)
Spare Terminal	Not connected

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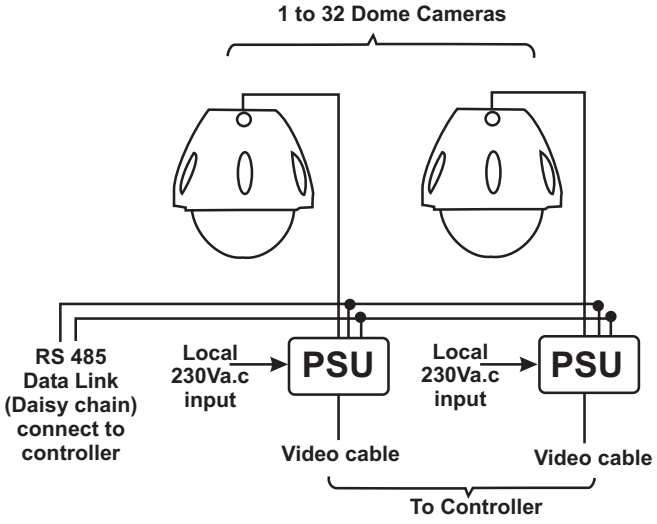
Control Configuration

The DM 2060 Dome can be controlled by one of three methods. The configuration drawings show the three connection arrangements. DM 2060 domes are delivered with the address switches set at FD (DM/Dennard UTC). DM 2060 with rx domes are delivered with the address switches set at 01.

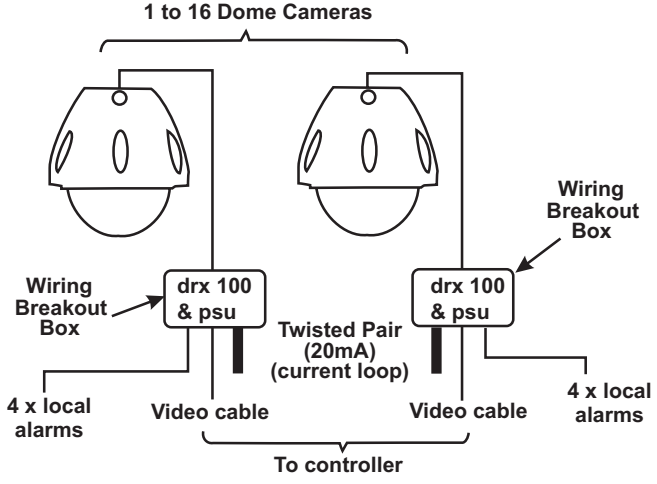
RS485

The switches on each dome must be set to a unique RS485 camera address, refer to 'Switch Configuration - Indoor and Weatherproof Domes ->RS485 Serial Connection'.



RX100 or AL008 Alarm Card Configuration

The switches on all domes must be set to address 01 by setting blue switch at position 0 and yellow switch set at position 1, refer to 'Switch Configuration - Indoor and Weatherproof Domes'.



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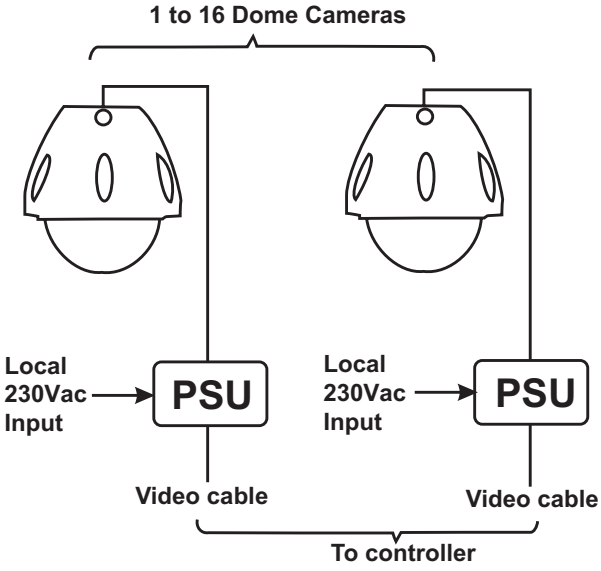
UTC (Up the co-ax)

The dome switches must be set according to the UTC protocol, , refer to 'Switch Configuration - Indoor and Weatherproof Domes'.



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Control Switches - Weatherproof Dome

To access the address switches and the RS485 termination switch, remove the outer hemisphere as shown above. The location of the switches is also shown. This operation should be carried out in an office type environment to avoid ingress of moist air.

Note: *When reassembling the dome, check the hemisphere sealing gasket is in place and that the hemisphere retaining screws are retightened to avoid water ingress.*

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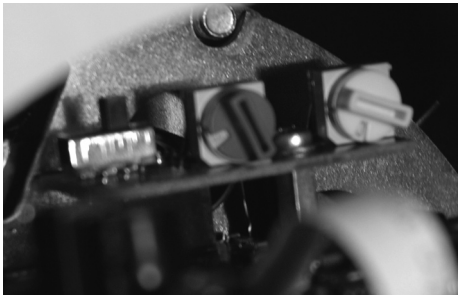
Control Switches - Indoor Dome

To access the address switches and the RS485 termination switch, remove the outer hemisphere by popping off the external trim and removing and retaining the three screws fastening it onto the body. Remove and retain the four screws securing the shield to the head and lift off the shield. The location of the switches is also shown. This operation should be carried out in an clean, dry environment.

Switch Configuration - Indoor and Weatherproof Domes

The same address switches are used for both RS485 and up the coax control.

Up the Coax Configuration



Switch settings

The switches are color coded, blue and yellow, and are located inside the dome camera housing. Configure the switches for the controller being used as shown in table below.

Note: *The switches are factory set to FD (DM up the coax control).*

Up the Coax Switch Configuration

Control	Blue	Yellow
DM/Dennard up the coax	F	D
Pelco Coaxitron up the coax	F	8
Baxall AC controllers	F	C
Baxall DC controllers	F	E

For up the coax control using external protocol convertors or alarm interfaces such as RX100 or AL008, the address switches should be set to Blue - 0 Yellow - 1.

RS485 Serial Connection

The coax cable and power wires are always connected.

The RS485 wires are only connected when an RS485 controller is being used.

The dome supports a range of serial RS485 PTZ protocols. The desired protocol and the node address for the dome are selected by the two rotary hex switches (blue and yellow) inside the dome. These are accessed by removing the outer hemisphere and inner shroud, refer to Switch Configuration for more information.

The switch settings for the protocols and node addresses are shown in the table below.

To use the table;

1. Select the protocol required
2. Select the node address of the dome to be configured.
3. Scan across the table to identify the values for the blue and yellow switches.

For example, if the dome is to be used with a Dedicated Micros PTZ controller system with address ID#5 the switches should be set to ‘05’. i.e. the blue switch should be set to ‘0’ and the yellow switch set to ‘5’.

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The dome will display its switch setting when first powered on as the screen will show (in the example above) “CAM 05”.

Camera Address

Protocol	#	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Dennard	0		01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D
	30	1E	1F	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F	30	31	32	33	34	35	36	37	38	39	4A	3B
	60	3C	3D	3E	3F	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51	52	53	54	55	56	57	58	59
	90	5A	5B	5C	5D	5E	5F	60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F	70	71	72	73	74	75	76	77
Pelco P 4800	0		79	7A	7B	7C	7D	7E	7F	80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F	90	91	92	93	94	95
	30	96	97	98	99	9A	9B	9C	9D	9E	9F	A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF	B0	B1	B2	B3
Bosch 9600	0		B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF	C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF	D0	D1
Ultrak	0		D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF	E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF

Switch settings (Blue, Yellow)

Set the individual RS485 address for the dome on the blue and yellow switches fitted inside the dome housing.

Set each switch to its desired position as shown in the table.

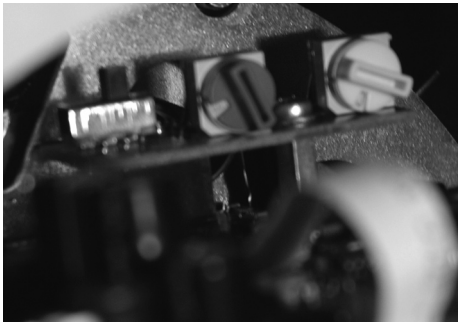
Extended RS485 addressing

The dome can be configured to allow up to 239 Dennard or Pelco P RS485 addresses to be used. The mechanism needs to be removed from the dome to enable this.

1. Follow the instructions to access the address switches, then unscrew 4x posi screws that hold the mechanism mounting in place and unclip the connector from the rear.
2. Locate SW3 on the main PCB adjacent to the mounted connector attaching the daughter board housing the yellow and blue address switches.
3. Set SW3 using the following parameters

Protocol SW3	1	2	3	4	5	6	7	8
Extended Dennard RS485	on	off	off	off	off	off	off	off
Extended Pelco RS485	off	on	off	off	off	off	off	off
Multi-protocol (default)	off	off	off	off	off	off	off	off

Termination



All Dedicated Micros 2060 domes are fitted with a termination switch, shown above. If a single dome is connected on the RS485 line, or if a star configuration is used, the termination switch should be switched to 'IN' (towards the colored address switches).

If multiple domes are connected in a 'daisy chain' configuration, then only the last dome in the chain should be switched to 'IN'. All other domes in the chain should be switched to "OUT'.

Note: *If the dome is being used with Dedicated Micros latest DVIP products (DV-IP Express, DV-IP Server, DV-IP HD, DV-IP RT), the termination should be switched to 'OUT' in all circumstances.*

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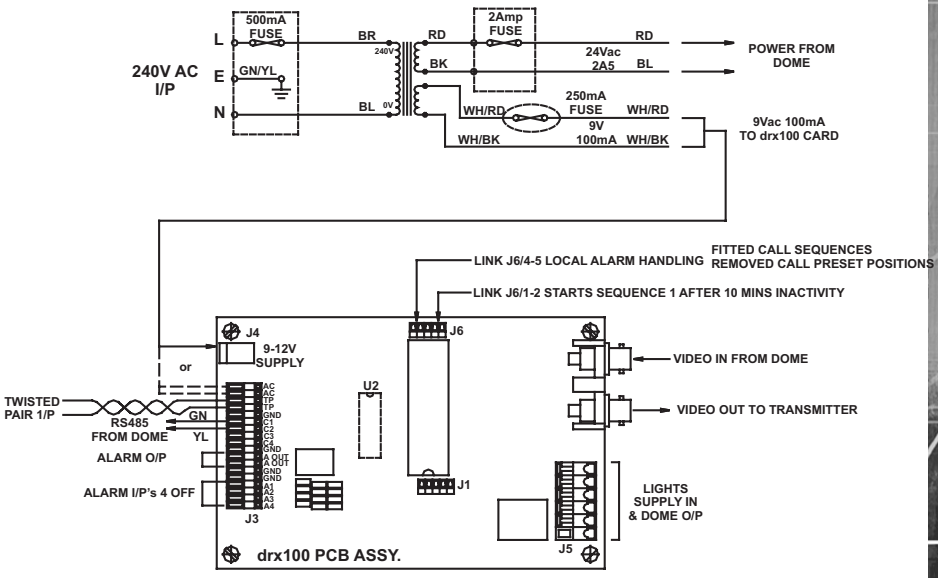
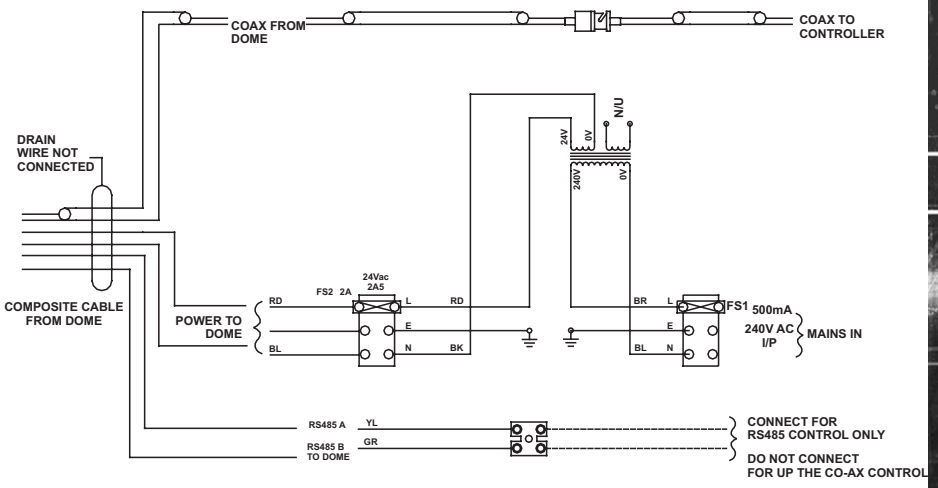
Circuit diagram

drx options



RS485/Up the Co-ax Configuration



Troubleshooting

No Picture

Cause

1. Check the Input and Output voltage
2. Check the continuity on the power and video cables.
3. Check the multicore cable on the weatherproof dome;

Pin	Signal
1	Video
2	Video screen
3	Data + (yellow)
4	Data - (green)
5	24V neutral (blue)
6	24V live (red)
E	Earth (drain wire)

No Control

1. Check the DVR is set to use the correct telemetry protocol and address settings.
2. Check the dome address switches are correctly set for the controller being used.
3. If RS485 telemetry is being used, check that the cable is connected to the serial port configured in the menus of the DVR, and that the RS485 connections are the correct way around (yellow=Data+ & green=Data-).

Picture with intermittent control

Cause

1. Control up the coax - This is most likely due to too much or too little video gain.
   Dome in co-ax mode requires video level be set to 1V p-p.
   i. Open the Technician menu (see Operation and Programming manual for details on accessing the menu).
   ii. Select 'Miscellaneous Services'
   iii. Select 'Host Comms/Video Amp'.
   iv. Adjust lift and gain settings.
2. RS485: Termination may be incorrect - check termination switch settings, *refer to 'Switch Configuration - Indoor and Weatherproof Domes' ->'Termination'*.

Dome spins continuously (DM controllers)

Cause

No joystick dead band recognized as joystick was off centre during powerup.

Solution

Reboot the controller with the joystick self centred.

Reset the Dome (software reset)

1. Open the Technician Menu (see Operation and Programming manual for details on accessing the menu).
2. Select 'Miscellaneous Services'

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3. Select ‘NVM Services’.
4. Select ‘Reload Factory defaults’.

Note: *This will delete all preset positions and tours from the dome memory.*

Software Version

To check the version of software installed in the dome;

1. Open the Technician Menu (refer to the Operation and Programming manual for details on accessing the menus).
2. Select ‘Maintenance Services’.
3. Select ‘Software Version’.

The OSD will display the version of software installed in the dome.

Camera Version

To verify the version of camera supported by the dome software;

1. Open the Technician Menu (see Operation and Programming manual for details on accessing the menu).
2. Select ‘Miscellaneous Services’
3. Select ‘Reset Head’.

As the dome resets, the OSD will display a reference number similar in format to

```
"1.4 V MB42"
```

The single letter in the middle of the reference indicates the supported camera, refer to the table below for more information.

Letter	Camera Model	Resolution	Format
N	36x Day/Night	530TVL	PAL
O	36x Day/Night	530TVL	NTSC
V	18x Colour/Mono	460TVL	PAL
M	18x Colour/Mono	470TVL	NTSC
X	18x Day/Night	530TVL	PAL
Y	18x Day/Night	530TVL	NTSC

Appendix A

DM 2060 Fixed Attitude Dome Camera - Setup

Telemetry cameras can be positioned remotely, fixed atitude cameras require manual adjustment to position the camera. Framing the desired camera image will be easier using a local monitor.

To Frame the image from a Fixed attitude camera;

1. Unscrew the 6x fixings securing the outer hemisphere to the casing and remove.

2. Grip the inner hemisphere and rotate to adjust the Pan position of the camera. This adjustment povides up to 180˚ of pan right and pan left movement.

Note: *Do not rotate more than 180˚ in either direction as this will stress the connections to the camera.*

3. Grip the camera platform, accessible through the camera viewing slot, to adjust the tilt position. This provides tilt up/down adjustment, refer to 'Zoom Cam Setup' for more information.

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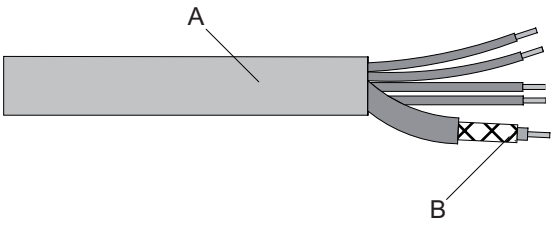
DM 2060 Fixed Attitude Dome Camera - Electrical Connections

The Dedicated Micros 2060 Fixed Attitude Camera Dome is supplied with an IP66 Amphenol connector with 3 metre composite cable flying lead. The connector mates with the dome as shown in the image below.

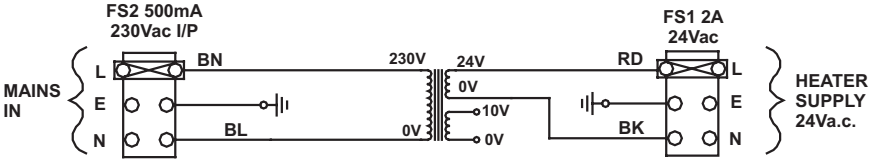


a. Multicore cable with integral Co-ax (Video)

b. Co-ax. (Video)

The co-ax and power wires are always connected, the RS 485 wires are only connected when an external protocol converter is fitted or an RS485 controller is being used.

Wire	Connection		
Red	24VAC live		
Blue	24VAC neutral		
Yellow	RS485 A	}	Not required for
Green	RS485 B		fixed attitude dome
Coax screen	BNC screen		
Coax Signal	BNC centre pin		



DM 2060 Fixed Attitude Dome Camera - 'Zoom Cam' Setup

The DM 2060 Fixed Attitude 'Zoom Cam' is equipped wih the 'zoom cam' high resolution camera. This offers a range of features which are described below.

1. Control

   Remote zoom control requires a Dennard, BBV or DM telemetry controller and the removal of lnk 'B' *(refer to 'View of right side of camera' below and to point 6)*.

2. Presets

   The 'zoom cam' can store up to 8 user definable zoom presets within memory, refer to the relevant controller instructions for preset programming details.

3. Default Position

   After a definable period of inactivity (default setting 1 minute) the 'zoom cam' will default to preset 1 (or wide angle if no presets are configured). On DM and BBV controllers, the setting 'Patrol 2 delay program' will adjust the time interval. Intervals steps are 1, 2, 3, 4, 5, 6, 8 & 10 minutes, using co-responding keys 1-8.

4. Patrol

   The 'zoom cam' patrol feature can be used to sequence between the preset positions. Follow the relevant controller instructions to setup 'Patrol 1'. Patrol mode is cancelled with any manual zoom action.

5. Video level adjustment

   Video level is factory set, but can be adjusted by turning VR1, located just above link 'B' on the receiver board (*refer to 'View of right side of camera' below).* This will lighten/darken the picture to compensate for the length of co-ax required.

6. Fixed lens

   When no remote control is available, the zoom cam can function as a fixed lens camera.

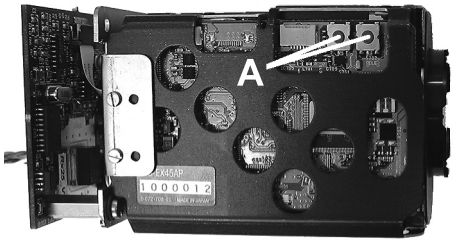
   a. Ensure link 'B' is fitted as shown *(refer to 'View of right side of camera' below)* between pins 9&10 on power up.

   b. Frame the preset picure required by zooming, using the buttons (A) on the left side of the camera *(refer to 'View of left side of camera' below)*.

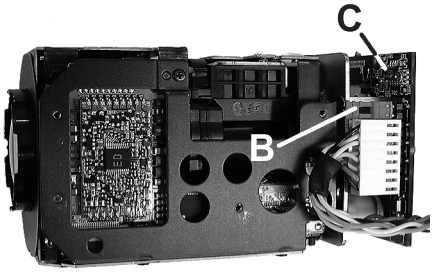
   c. Remove the link 'B' for ten seconds and then refit. The link must be left on permanently.

Note: *To revert to 'zoom cam' operation, the link must be removed and power to the camera cycled (removed and reapplied).*

View of left side of camera



View of right side of camera



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Notes

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